

!

!"#\$%&%') \*#+,-+!%+./"#.0'-(1")/  
21\$#'3/(1/!10+(#"/4-5#/+ #637/ /  
"%353/14/-/+1+ \*,-"21+%8#\$/  
%+(#"2#\$%-")/'%-&%')/9-"-\$%.2/  
3,%4(//

!"#\$%&'()\*#+, "-&)"&.%\$&/"#%\$&0!&

!

"#\$%! &#('! \*)+,-,-.!) \$)! %/%01'),,0! ,.1%'2%3,#'4! -%'+,0%! \*)+,3%'-!  
'%\*%-%.1!#5%4!0)22).!\*)/04!,..!6)/36,3%7.1%'.%9%89/#1,).!;/1&)98&!  
1&%!'! #'%! 3,-\*#,1,%-! ,! -0)\*%<! #\*\*/,0#(/%! 0).3,1,).-<! #.3! %\$\$%01-<!  
,.1%'2%3,#'4!/,#(/,14! %=%2\*1,).-! &#+%!(%1%1-%9%/4!,.0)'\*'#1%3!,.1)!  
2)-1! >9',-3,01,).-! #.3! #'%! 1&%! (#05().%! )\$! %/%01'),,0! 0)22%'0%! #.3!

!  
"\$#!

IJK!!! L!7# F\$!M%&'(! N!@ #%)#("'%"# !O(+ ! P,\$ !QR, !S

'%89/#1)-! 19'! 1&%,!1#1.1,.)! 1)6#3! ,.1%'2%3,#,%-! #-! 1&%4! #%! 2)'%!  
#00%--,(/%<!,.!#.!#11%2\*1!1)!0).1')/! 1&,-!8')6,.8! ,.\$)'2#1,)!0&#//%.8%:!7\$!  
#00%--,(/,14<! +,-,(/,14! )! +,#/,14! 6%'%! 0).1#,.%3<! 1&%! %\$\$%01-! )\$!  
2,-,\$)'2#1,)!6)9/3!(%! -,8.,\$,0#.1/4!'%-1'#,.%3:! C&%!\*)/,04!)!1! 1&#1!  
-&)9/3!(%! #3)\*1%3! 1)! #0&,%+%! -90&! #! \*)-,1,+%! )910)2%! #%! 3,\$\$,09/1! 1)!

W)%&'-\$'#1 D@0("3'"2! ^ %25\$(#,)1! M,&%\$/ ! !JI !

7!C0%Q(1%)!.,! X'2#(\$! 7#%)\*%&'(#," H 33%/!-\$'#1 P!-\$'#1 <  
("&! W)%&'-\$'#1 !

X,8,1#! ,.1%'2%3,#',%#! \*/#4! #! 0',1,0#! ')/%! ,.! )9! 3,8,1#! -)0,%14:!  
`9-,.%--! 1'#.-#01,).-<! %0).)2,0! #01,+1,%-<! -)0,#! ,.1%#01,).-<! %390#1,).#/  
#.3!09/19#!!%.+,')2%.1-<!#3!)1&%'+#,%3!3,2%.-,).

IJS!!! L:17# F\$!M%&'(! N!@ #%)#("'%"# !O(+ ! P,\$ !:QR, !S

C&%-%! \$9.3#2%.1#/' )/%-! )\$! ,.1%'2%3,#,%-! ,.1 3,8,1#/' -)0,%14! 3)<! & )6%+%<'! 0).-1,191%! 1&%,! '8'%#1%-! +9/.%#(,/14<! #-! 1&%4! %=#0%(#1%! 1&%,! %=\*)-9'%!1)! , -5:17.!\$#01<!,.-)\$#!#-!,.1%'2%3,#,%-!\*)+ ,3%#!#00%--,(,/14<!#3! +,-,(,/14!1)!9-%8%.%#1%3!0).1%.1<!6&%%! -90&!0).1%.1!,-!//%8#/<!&#2\$9/<! )! \$#/-%<! ,! 2,8&1! (%!,/4! #89%3! 1&#1! 1&%4! 3)! ,.3%%3! \$#0/,1#1%! 1&%! ,.\$ ,.8%2%.1<!%#(/%!1&%!0#9-#1,.)!\$!3#2#8%<!)!%+%#!#2\*/,\$4!1&%!,2\*#01! (4!\*),+3,.8!1))/-!1)!3,--%2, #1%! 1&%!, \$)2#1,.)!O,5%6,-%<!1)!1&%!%=1%.1! 1&#1!,.1%'2%3,#,%-!#01!+)/9.1#',/4<!)!#%!,.+)/9.1%#4!6!8!9)3-! )\$!1&%!'%#-).#(/%!%=\*%01#1,.)!\$!0#%1'9-1%3!1&,'3!\*#1,%-<!1&%4!2,8&1! #89#(/4!(%!.%3)'.-8!)!-9\*\*)'1,.8!1&%!0).1%.1!1&%4!1'#.-2,1<|-1)'%<|-%#0&<! /,.5<!)!2#5%!#+#,#(/%!:;00)'3,.8/4<!1&%,!'%=\*)-9%!1)!/,#(/,14!,.0%#-%-! 8'%#4:!!!!!!

C&,-!1,0/%,-!(#-%3)!1&%!\*%2,-%!)\$!1&%!#3!4%0,(%3!16\$#0%3! )/%)!\$! ,.1%'2%3,#,%-!1)!3%+,-%!\*--,(/%! -1'#1%8,%-!1)!0)9.1%! \$#5%! .%6-:! 7.1%'2%3,#,%-!#%#!#3%1%2,..8!0)2\*).%.1!)\$!2,-,\$)'2#1,.)!2#0&,.%4:! ;/1&)98&! \$#5%! .%6-! , -14\*0#9-%\$#('0#1%3! 0).1%.1<! ,.1%'2%3,#,%-! \*)+ ,3%#! 1&%2! 6,1&! 1&%! .%#3%3! \$%#19%-! 1)! 8#,! ,2\*#01H! #00%--,(,/14<! +,-,(,/14<!+ ,#/14<!#3<!#-!#0).-%G9%.0%<!%'0%,+%3!0%3,(,/14: C&%%'\$)'%<! (%0#9-%! 1&%! )',8, #/! -)9'0%! )\$! 1&%! 3,-,\$)'2#1,.)! 0#!. %1&%#!(%#! /)0#1%3! .)! %\$\$\$01,+%/4! 0)2(#1%3<! '%89/#1)'-! 19'! 1&%,!' #11%.1,.)! 1)6#3! ,.1%'2%3,#,%-! #-! 1&%4! #%! 2)'%! #00%--,(/%<!,.#! #11%2\*1! 1)! 0).1)! 1&,-! 8)6,8!,.\$)'2#1,.)! 0&#//%.8%: 7\$! #00%--,(,/14<!+,-,(,/14!)! + ,#/14! 6%'%! 0).1#,.%3<! 1&%!%\$\$\$1-,\$)'2#1,.)!6)9/3!(%! -8,,\$0#.1/4!'%1#,.%3: C&%! \*)/04! )\*1,.)-! 1&#1! -&)9/3! (%! #3)\*1%3! 1)! #0&,%+%! -90&! #! \*)- ,1,+%! )910)2%!#%!3,\$\$,09/1!1)!\*,\*),.1: !g&%%!1&%!,.1%'2%3,#4!//,(,/14!'%8,2%! ?T-#%#!&#(U\*)+,-).-B!6#!0/%#/4!3%-8.%3!,.1&%!#\*\*,#40!)\$!1&%!

W)%&'-\$'#1 D@0("3'"2! ^ %25\$(#,)1! M,&%\$/ ! !JJ!

?\$#/-%B! 0).1%.1<! '%-)'1! 1D\$%05%'-<! ,2\*/%2%.1! %\$\$%01,+%! .)1,0%! #.3!  
0)2\*/#,.1! -4-1%2-<!)! '%+%!.#--92%! #! 8%.%#/#! 3914! 1)! 2).,1)! ,!)'3%! 1)!  
3%1%01!)(+.)9-/4! \$#/-%!.,\$)'2#1,).:]1&%!'\*)-,1,).-! &6%+%<!--%2! 5%%%.%!  
)! \*'%-%'+,.8! 1&%! 09"%/,#(/,14! -4-1%2!)! 1)! '%/4!).! 9-0).1')//%3!  
2).,1)',.8! -0&%2%-:R)! @A0,3%! '%89/#1)'4! #01,).! &#-!(%%.! #3)\*1%3! 4%1<!  
(91! #! E,80

I\ !!! L:17# F\$!M%&'(! N!@ #%)#(""%# !O(+ ! P,\$ :!QR, :!S

0).1%=1<! \*%0%\*1,(/%! -,8.-! )\$! #! \*)--,(/%! \*##3,82! -&,\$1! '%8#3,.8!  
,.1%2%3,#4! /,#(/,14! '%8,2%! 0)9/3! (%! ,.3,0#1,.8! #! 0&),0%! \$)! 1&%! /#11%!  
'%89/#1)4! )\*1,).:;! /,#(/,14! #-%3! #01,).! 6)9/3! #\*\*%#! 1)! (%! #! +%4!  
%\$\$\$01,+%!3%1%" ,.8!#.3!0).1')//,.8!-1#1%84<!/%--!\*)/,1,0#/<!.3!2)'%.%91'#/<!  
(91!,.!\*#01,0%<!,1!'%G9,%-!18%1)\$!\*6%!'1)!\*',+#1%!%.1,1,%-!1)!2#.8%!  
1&%!0%#1,.)!c 46 0 0 46 542.4 (.%91) 0 0.26%!2!



IJe!!! L!7"# F\$!M%&'(! N!@ #%)#(""%"# !O(+ ! P,\$ :!QR, :!S

2,-/%#3,.8! 0).1%.1!)! \$#('0#1%3! 0).1%g;1&! -90&! ,2\*'%0,-%.%--<! 1&%!  
1%'2!,-!9.-9,1#(/%!\$)!3%/2,1,.8!1&%!-0)\*%!)\$!##\*/0#1,.)!\$!#4!'%89/#1)



W)%&'-\$'#1 D@0("3'"2! ^ %25\$(#,)1! M,&%\$/ ! IIJf !

#.4:7\$!1&%!&#2!,-!#3%+#9#1,.)!\$!0)//%01,+%!1'9-1<!,1!2,8&1!(%!3,\$\$,09/1!1)!  
G9#.1,\$4!3#2#8%#2#8%!1)!\*9(/,0! ,.1%'%-1!,-!\*)#(/4!1&%!2)-1!\$%#%3  
#.3! 3%-1#(/,V,.8! ,2\*#01! )\$! 1&%! -\*%#3! )\$! \$#/-,14<! (91! ,1!2#4! .)1  
0)2\*%.-#(/%! 9.3%! 1&%! 0))'3, #1%-! )\$! 1&%! 0,+!/ /,#(/,14! '%8,2%:! 7\$! 1&%!  
/,(/,14!-4-1%2!,-!\$)9.3%3!#!#!)1,0% %3!-0&%2%<!,1!2,8&1!(%!3,-09--%3!  
6&)! ,! %=\*%01%3! 1)! '%\*)'1! #.3! #//%88p,2#1%! ,.1%'%-1-! 1)! #01!  
W).-%G9%.1/4<! -&)9/3! \$756%D

IJQ!!! L:17# F\$!M%&'(! N!@ #%)#("'%"# !O(+ ! P,\$ !:QR, !S

#.3! &#2\$9/ 0).1%.1% E)6%+%<! ()1&! \*)/,04! \*)\*)-#/-! b! &,8&%!  
'%\*-).-,(/,14! #.3! 0,+!/ /,/#(/,14b! &#+%#1!) (%! 1%-1%3! 6,1&,.! #! '%89/#1)'4!  
-1'#1%8,0#/10).1%=1!1!)0)9\$#5%!.%6!72\*/,0#1,).-<!0).-%G9%.0%-<!#.#3!  
,.1'0#0,%-16,//19.3)9(1%3/4!(%!3,\$\$%d'%.1!  
! g,1&,.! -90&! #! \*%&.)2%.#! 3%/2,1#1,24! \*)\*)-#/-! ,! 1&#6#5!  
. %6-!&#-!16!)3,2%.-).-H!1&%!\$#019#/#!).%! 1&#1!3%1%'2,.-!,1-!+%#0,14<!#.#3!  
1&%!-0,#!/).%!1&#1!,-!(#-%3!).!\*%'0%\*1,).!Z#%0%\*1,).!#.#3!2,-/%#3,8!  
%\$\$%01!2#4!(%!3%1%'2,.-%3!(4!1&%!-9(-1#.0%!)! (4!1&%!\$)'2!;-!#!2#11%!)\$!  
\$#01<!1'9%0).1%.1!0#.!(%!\*%-%.1%3!,!#!6#4!/5%/4!1!)2,-/%#3<!0).\$9-%<!)'!  
1',88%!'2,-.1%\*'1#1,).!g&%%'#-11&%!\$)'2%'!G9,%-!#.!(>%01,+%#1%-1!#.#3!  
. %3#!0%3,(/,14!'%'%'%.0%!.%3)'-%3!(4!#1'9-1%3!1&,'3!#\*14<!1&%!/#11%!,.-!  
3,\$\$9-%!#.#3-9(>%01,+%#.#3!3%\*%3-!).!0)229.,14!\*%'0%\*1,).:  
! 7.!%8#3!1!)1&%!\$#019#/#!3,2%T\$#5%!.%6!%0%-# /4!%2('#0%-!  
#!3%8%'%)\$!\$#/-,14!g&%%'#-!+%#0,14!\*%'1%\$#0%4<\$#/-,14!#.#8%-!#!  
6,3%! -\*%01'92! )\$! ,+%#0,1,%-! Z#/-,14! ,! #.#4! 3%8%'%) ,! #--%--%3! )! #!  
)(>%01,+%#1%!(#,-!:/1&)98&!,.1%.1!,-!%/+%#.#1!1!)3,-1,.89,-&!3,-,\$)2#1,).  
#! 3%/,(%#1%#01! \$)'2! 2,-,\$)'2#1,).<! #! #! ,.#3+%#1%.1! )2,-.)! )!  
9.,.1%.1,).#! -&#,.8! )\$! \$#/-%!,,\$)'2#1,).<! #! 6%/! #! 1!)! 3%1%'2,.-% 1&%!  
,//%8#,14!\$!1&%!#01!)!%+%!.1&%!0)2\*%.-#1,).#/#3#2#8%-<!1!6,/(%!,8.)%3!  
\$)! 1&%! \*9\*)-%-! )\$! 3%\$,.,.8\$#/-%! 0).1%1! #! /,/#(/,14! -0&%2%!)\$!  
,.1%'2%3,#,%-! g&%1&%! 3,8,1#! ,.1%'2%3,8,%#1\$)'2-! 3%0,3% 1!)!  
,2\*/%2%.1!\*)#01,+%#2%0&#,-2-!1!)3%1%01!\$#/-%0).1%.1!#.#3!%2)+%!,1<!1&%!  
,.1%.1,).#/#\$#01!)! ,! 1&%!)',8,.#1,.)! ,! ,! 1&%!3,--%2,.#1,).!-&)9/3!.)! (%!  
,.0!\*)#1%3! ,! 1&%!\*)0%--<! #! ,! ,! ,! %--%.1,##/4! ,"%/#+.#.1!\$)! 1&%! /2,1%3!  
\*9\*)- %!)\$! 1&%! 3%1%01,).! R).%1&%/%--<! ,.1%'2%3,#,%-! 2#4! 9-%!)(>%01,+%#!  
\$#01)'-!#-!\*)=4!\$)! ,.1%.1,).#/#14!-90&!#-!%'%1,1,+%#3,--%2,.#1,.)!\$!\$#/-%!  
0).1%.1<+!)92%!)\$!-\*%'5%!.%6!#1!1&%!0,'092-1#.0%-!%+%#/,8!#!  
)8#,V%3!#.#3!-4-1%2#1,0!-1'9019%!

W



W)%&'-\$'#1 D@0("3'"2! ^ %25\$(#,)1! M,&%\$/ ! !\! !

'%89/#1)4! '%)\*-%! 1)! #1,09/#1%! 1&#1! \$9.3#2%.1#/! \*)/,04! ;-! #! 2#11%! )\$!  
\$#01<! -#\$%! &#('! \*)+,-,-! \$)! %/%01').,0! ,.1%'2%3,#4! -%'+,0%! \*)+,%3%-!  
'%\*%-%.1! #! 5%4! 0)22).! \*)/,04! ,.! 6)/36,3%! ,.1%'%.%1! '%89/#1!):  
;/1&)98&! 1&%!'%! #!'%! 3,-\*#',1,%-!,,! -0)\*%<! #\*\*/,0#(/%!)0)3#3! %\$\$%01-<!  
,.1%'2%3,#4! /, #(/,14! '9/%-! &#+%!(%!.! %=1%.-,+%/4! ,.0)\*'1%3! ,.1)! 2)-1!  
>9',-3,01,)-.#3!7.-\*, '%3!(4!1&%!A:"!:/%8#/'\*%0%3%.1!?'--%.1,#//4<!"%01,)! [IS!  
)\$! 1&%! X,8,1#! M, //%,.,92! W)\*4',8&1! ;01B.1%'2%3,#4! /, #(/,14!  
%=%2\*1,)-! &#6! (%%.! 1&%! 0%.1#! #=-,! )\$! %/%01').,0! 0)22%0%! #.3! 1&%!  
,.\$)'2#1,)-! 0,%14! -%'+,0%-! /%8#! /\$#2%6)'5!,.! @9)\*%!'\$)2! 1&%!'9! -%1:

C)! 3#1%<! ,! &#-!(%%.! #! 0)22).\*/#0%! #--92\*1,)! 1&#1! 1&%!,.1%'2%3,#4!  
,). D, #(/,14! \*#'#3,82! &#-! #00%//%#1%3! 1&%! %=\*#,-,)! #,3#0,)! )\$!  
1&%! 3,8,1#! /! %+,).2%b.1:

7.1%'2%3,#4! /, #(/,14! '%8,2%! \*,+)-1-)! 16)! 5%4! 1%.%1-! #.3! #! /%8#/  
0).0%\*1! )\$! -%'+,0%! \*)+,%3%-! 1)! 3%\$,.%! 1&%! -0)\*%!)\$! #\*\*/,0#1,)! :! Z,-1<! 1&%!  
(#.! )\$! ,2\*)-,8! #! 8%.%#! )(/,8#1,)! 1)! 2),1)' !)! -%'+,0%! \*)+,%3%.\$!  
"%0).3<! #! 5.)6/%38%3#5%6)! -4-1%2.#%' )1&! 1%.%1-! 0).-1,191%! 1&%!  
\*,//#-! )\$! #! .%8/,8%.0%

IS !!! L:17# F\$!M%&'(! N!@ #%)#(""%# !O(+ ! P,\$ !QR, !S

-1)'%<!0)\*4<!)!-%#0&!#3!1&%4!#%!0#//%3!1)!#01!).4!6&%!.#3!1)!1&%!%=1%.1!  
1&%4!&#+%5.)6/%38%!#!#6#'%.--!)\$!//%8#/,,\$)'2#1,.)!#!#01!+,1,%-:!

]! 1&%! 8'9.3-!)\$! 1&%! #(-)8%-0',(%3! 16)! 5%4! 1%.%1-! ?.)! 3914! 1)!

2),1)! #.3! 5.)6/%38% 0#-%3! 1#5)6.! )(/,8#1,).-B<! ,.1%'2%3,#'4!

/,#(/,14!'%8,2%#\*\*/,%-! 0 30 0 1 (((1%!,.) 1 (1%) 1 ',2) 2 (%) 1 (3) 1 /,#!(%) 8 (+) 1 ((0) 1 (%) 1 (

W)%&'-'\$#1 D@0("3'"2! ^ %25\$(#,)1! M,&%\$/ ! !IJ !

.,!1&%!X,8,1#/".,8/%!M#5%1!\$)†@A%+%1,).<!0).1')/<!#3!%.\$)'0%2%.1!  
1#-5-!#%!'8'#39##/4!1'#-.\$%"%3!1)!#3!#//)0#1%3!).!.,1%'2%37#1,8#1!  
0).1%=1<! \*/#1\$)2-! #.3! ,.1%'2%3,#,%-! &#+%! ,2\*/%2%.1%3! 2).,1),.8!  
2%0&#.,-2-!#3!#91)2#1,0!\$,/1%'.8!-4-1%2-!).!#+)/9.1#4!(#,-,11)!0)9.1%!





W)%&'-\$'#1 D@0("3'"2! ^ %25\$(#,)1! M,&%\$/ ! !\| !

!e !!! L:7"# F\$M%&'(! N!



\Q!!! L:7"# F\$!M%&'(! N!@ #%)#(""%"# !O(+ ! P,\$ :!QR, :!S

W)%&'-\$'#1 D@0("3"2! ^



W)%&'-\$'#1 D@0("3'"2! ^ %25\$(#,)1! M,&%\$/ ! !![! !

?#3+% '1,-%2%.1

I[S !!! L:17# F\$!M%&'(! N!@ #%)#("'%"# !O(+ ! P,\$ :!QR, :!S

.,1%'2%3,#,%-!,.-)2%#!#%#-!#.3!#18%.%#/-9\*\*)1!)\$!+)/9.1#4!\*%+%1,.)!  
#.3!%.\$)'0%2%.1!2%0&#,-2-:!(7.!)'3P)!\*%+%1!0)\*4',8&1!,,\$',.8%2%1<  
1&%!1(#/%1E#! 2+! =2PB(1,0%! <2(! 3! :1,1%34! I1+,4#!)U37#1&%!  
J'-12E1\$'34! U#-13! I#(E1/#\$:1(#/%1E#)9/3!%.0)9#8%! 1&%! #3)\*1,.)\$!  
%\$\$%01,+%! 0).1%.1! '%0)8.,1,.)! 1%0&.)8,%-! 1)! \*%+%1! 1&%! #+#,#(/,14! )\$!  
.,\$',.8,.8!0).1%.1!  
; \*\*#%.1/4<! 1&%-%! 0))\*%#1,+%! )(/,8#1,.)-! 6)9/3! ,.1')390%<! #1! /%#-1<!  
391,%-! 1)! \*%+%1! \$919'%, ,,\$',.8%2%.1-! 6,1&! #! 2)'%! 8)%-%#%+%!. ,,\$!  
1&%! 4! 0#! (%! -1,/! 0).-,3%'%3! -\*%0,\$,0! ,.! %/#1,.)! 1)! \*%+,)9-4! ,3%.1,\$,%3!  
0).1%.1)!',8&1-:!!  
7.! '%8#3! 1)! &#2\$9/! 0).1%.1! 1)! 2,.)-! #.3! &#1%! -\*%0&3%D  
-&#',.8!/#1\$)'2-<!1&9%12E1\$'34!U#-13!I#(E1/#\$:1(#/%1E#),3%-!?'#1:!  
SQ(B!0%'1#,./4<!6,1&)91!\*%>93,0%!)\$!;'1,0/%-!I!#3!I!)\$1&%!E#2+!  
F4#/%(2+1/!=2AA#(/#b!1&%!)(/8#1,.)!\$!+,32&#',.8!-%'+,0%!\*))+,3%'-!  
1)!#3)\*1!#3%G9#1%!2%#-9%-'1)!\*)'1%01!2,.)-!#3!\*%+%1!&#1%#3!+,)/%.1!  
-\*%0&! ?1%'2-! )\$! 9-%<! '%\*)'1! #81-\$/1%2<! #8%! +%,\$,0#1,.)<! \*%#.1#!



W)%&'-\$'#1 D@0("3"2! ^ %25\$(#,)1! M,&%\$/ ! !!J !

I\ !!! L:7" # F\$!M%&'(! N!@ #%)#(""%"# !O(+ ! P,\$ :!QR, !

W)%&'-\$'#1 D@0("3'"2! ^ %25\$(#,)1! M,&%\$/ ! !![[ !

h%1<!)2!#!'%89/#1)'4!\*),.1!)\$!+,%6<!1&%!3%0,-,.)!1)!3%+,-%#!2)3%!)\$!  
,.1%'2%3,#! '%-\*)-,(/,14! 1)! 0)2(#1! T\$#5%! .%6! &#-! 1)! #33%-! 16)!  
3%/0#1%! ,%9! 1&%! /%8#! 0).-%G9%.0%-!)\$! '%-\*)-,(/,14! #.3! 1&%! \*%'-).#!  
-0)\*%!)\$!1&#1!'%-\*)-,(/,14:

I[e !!! L:17"# F\$!M%&'(! N!@ #%)#(""%"# !O(+

W)%&'-\$'#1 D@0("3"2! ^

!Q!!! L:17# F\$!M%&'(! N!@ #%)#("'%"# !O(+ ! P,\$ !:QR, !:S

?\$%'%3)2!)\$!-%%0&<!'%'!#00%--!1)!,.)\$'2#1,.)<!'%'%3)2!1)'9.!#(9-,.%--B<!  
#3!1&%!'\*%-%'+#1,.)!\$.%91'#,14!6)9/3!&#+%1)!(%!0#%'\$9/4!8#98%3:!]+'  
'%2)+#/, -!#! +%4!/,5%/4! %= \*%01%3!'%-9/1<! #-! \*/#1\$)'2-! #3! ,.1%'2%3,#',%-!  
6,!!-1',+%!&#3!1)!2,,2,V%!'1&%,!'%=\*)-9%'!1)!/,(,/,14!',-5-!

W',2,#! /, #(/,14! 6)9/3! /,5%/4! 3,-1)'1! 1&%! 2#5%1! ,.1 #!, '%\*##(/%!  
2#..%:;! -! #! 0).-G9%.0%<!'%'%3)2!)\$!-%%0&<!'%'!\$)2#1\$),<!  
#3! 3,#/89%! +#/9%-! 6)9/3! (%! -%+%'/4! &#2\*%'%3:;! ;! 2)3%/! )\$!  
#32,, -1#1, +%! /, #(/,14! 6)9/3! \*%.#, V%!'#4! 14\*,\$,%3!0).1# +%1,.)! )\$! 1&)-%!  
'/8#%! 391,%-! -%1! )91! (4! '%89/#1,.)-! 6,1& \$,.-<! )!'! 1&%!' #32,, -1#1, +%!  
-#.01,.)-! C&#1! &#-!(%%.! 1&%!'\*#1&!'1#5%'2#4! 6,1&!'1&%!'%.#012%.1!)\$!  
1&#5#%&!'WA.3%! 1&,-! ;0! 4&%! 0)22,--.)! )\$! #! '%89/#1'4! )\$\$%!' #!  
'\*)+,3%3! \$)'! (4! 1&%! /#6<! %,1&%!' ,.1%1,.)#//4! )'! .%8/,8%.1/4<! 6,!! (%!  
-#.01,.)%3! 6,1&!' \$,.'\$! 9\*! 1! )\$ ,+%! 2,!! ,.)! %9)'! A.3%! 1&,-! 2)3%/<!  
,.\$,8%2%.1-! #%! %--%.1,#/! 1! #! \*)0%39#/#! #19%H! \$,/'9%! 1! )'\*)+,3%!' #!  
-\*%0,\$,%3! \*)0%39%<! 1! )-9\*\*/4! ,%0! /4<! 1! 2),1)! 1&%! &#3,./8! )\$!  
0)2\*#,-<! 1)! '%01,\$4!#.! )'8#.,V#1,.)#/#,/'9%! ,.139%1,2%<!)! )! #2%! 1&%!  
'%G9,%3!#91&'),V%3!'\*%-).<! #2).8! 1&%'-:!'7!-92<! 1&%!/#6!3%/.,%#1%-!#!/%8#/  
2)3%/! \$)! T#! 8)3<! %-\*)-,(%!' \*/#1\$)'2j,.1%'2%3,#'4? -1,01/4! -#5,8<!  
'\*)+,3%!'! \$)! #! -)0,#/!.%16)'5!,.11&%!'1%2,.)/)84!9-%3!(4! 1&%!/#6B:! C&%!/#6!  
'%.0)9#8%-!\*/#1\$)'2-\$#//,8!9.3%!11&%!-0)\*%!)\$!#\*\*/,0#1,.)! )!(%0)2%!)2)%!  
'%-\*)-,(%!' ,.11&%! \$,8&1,8!#8#,-1! ,/,%8#!! 0).1%.1:! E,8&\$,.-! 6)9/3!#01!#-!  
3%1%'%.1-\$%+,#1,.)!

A./,5%!#.#32,, -1#1, +%#(/,14! 2)3%/<! #! 0, +, /, #(/,14! 2)3%/! 3%\*%3-!  
)! 1&%!(#-0!1',88%'-\$)'!0/#,2,8!/, #(/,14!:Z9.3#2%.1#1\$#9/1<!0#9-#1,.)<!  
#3! 0)2\*%.-#(/%! 3#2#8%:!'Y/#1\$)'2-! #3! ,.1%'2%3,#',%-! 6,!! 0%'1#%14!  
'%.0)9#8%3! 1! )#3)\*! #3%G9#1%2-! #3! \$)'29/#1%! '%#-)#(/%! 0).1%.1!  
'\*)/,04! 1! )3%2).-1#1%! 3,/,8%.0%:!'R%+% '1&%/'%--<! 9,5/3! ,&#2\$9!  
0).1%.1<! ,.1 0#-%-! )\$! \$#/-%! 0).1%.1<! 3#2#8%! 6,!! (%! 3,\$\$9-%! #3! +%4!  
\$%G9%.1/4! &#3! 1! )G9#1,\$4<! #-! 0).1%.1! ,! 3,--%2,.#1%3! (4! 9-%'-:;! ;!  
)+%

W)%&'-\$'#1 D@0("3'"2! ^ %25\$(#,)1! M,&%\$/ ! !![\_ !

-)9.3! /, #(/, 14! '%8,2%! -%%2-! 1)! .%%3! #! 1#.-)\$'2#1,)! 1)! \$#0%! .%6!  
0&#//%.8%-:!.!#/#'2,.8!- \*%#3!)\$S#5%!.%6!#.#!8'6,.8!.,.1%'#1,).#/  
0).0%!#!#()91!1&%! \*%'+#-,+%! \*%.%1'#1,)

leK!!! L:17# F\$!M%&'(! N!@ #%)#("'%\*"# !O(+ ! P,\$ !:QR, !:S

#.4! #11%2\*1!) 9.3%2,.%! 1&%! 0%3,(/,14! \*%0%\*1,)! '%G9,%-! \*/#4! 6,1&!  
\*)#9/#!'%G9,+%/1-:! C&)-%! #/1%'#1,+%! 2)3%/-! 1&#1! &#+%!(%#.! \*%+,)9-/4!  
3,-09--%3! #,2%3! 1)! 9'8%! ')! %0)9'#8%! \*/#1\$)'2-! #.3! ,.1%'2%3,#,%-! 1)!  
0))%'#1%! 6,1&! \*9(/,0! #91&)',1,%-!<! 1'9-1%3! 1&,'3! ##3! #91&)',1#1,+%!  
+),0%-! 1)! 3%1%01! \$#/-! 0).1%.1! #33%'--! 1&%! \$,-! 1! 3,2%-.):! E)6%+%<! ,1! ,!  
3)9(1\$9/! 6&%1&%! \*/#1\$)'2-! -&)9/3! 0)//#()#1%! ).! ,.\$9-,8! #1,\$,0,#/!  
\*)#9/#',14<! -1, ".8! 1&%! -\*%#3! )\$! 1&%! 10\$#605,.8! 0).1%.1! )! 1&%!  
'%01,\$,0#1,.)<!)!\*)+),58!\*)2\*1!+,#/,14:!!

! W).-,3% ',8! 1&%! #(-)9-09--%3! #/1%'#1,+%! 2)3#%V,5%/4! 1)!  
'%-9/1!\$)'2!#! \*#'#3,82! -&,\$1!,./, #(/,14<! 1&%! \$)//(2)3%/(\*)\*)-#! 1)!  
%.&#.0%!0%3,(/,14!#3!0)9.1%!'\$5%!.%6-!,-)91/,.%3!(%/)6:!

! Z,'-1<! #! 8'%#0%)\*-,(/,14! 2)3%!/ 1)! %-9'! 0))%'#1,)! )\$!  
\*/#1\$)'2-!#3!,.1%'2%3,#,%-!6,1&#91&)',1,%-!-%%2-!1)!(%!#!%#-).#(/%!-1#8%!  
1)!-1#1:!'71!,.0%.1,+,V%-!,...)+#1,.)<!,.0%#-!-%!0)2\*%1,1,.)<!#3!, -! (#-%3!)..!  
+)/9.1#4!0)//#()#1,):! E)6%+%<! ,1! 29-1!(%!#!1%2\*)#4!2)3%1!%,8!  
8')9.3-!\$)'1&%!\$919%!3%+,-,8!)\$!#!%89/#1)'4!2)3%/:!

! "%0).3<!1&%!\*)2)1,.)!\$!1#.-\*#%04!.)!0).1%.1!\*)/04<!.).1,0%!#3!  
0)9.1%1)0%1,0%!\*')0%39%<!#3!#91)2#1,0!\$,/1%' ,8!3%-8.!#3!)\*%#1,)!#/-)!  
\*)+3%#! 3%\$%.-(/%!'89/#1)'4!-)/91,):! 71!,1!9#9! \*'93%.1<!#3!)/4!  
-,8&1/4!,+#+,+%:! M#5%1!3,-0,\*/,%6)'5-!#3!9-%-!2#5%! 1&%!,.,\$)'2%3!  
\$%#%!3%0,-)!-:!

! C&,'3<!#-1',01!/,#(/,14!'8,2%<!#-!6%//!#-!1&%!,2\*)-,1,.)!\$!#8%.%#/  
3914!1!)2,.)1)'<!1!)0)9.1%!'\$5%!.%6!0#..)1!(%#//)6%3! C&%!'%0%3!  
0).-%G9%.0%-! 6)9/3! (%! &,8&4! 9.3%-,#(/%! #3! 3%1',2%.1#1! 1)! 1&%!  
3%+%/)2%.1!\$)'9!3,8,1#/-)0,%14:W).1#',/4<!#12)3%!/#,2%3!1)!%0)9'#8%!





leS!!! L:17"# F\$!M%&'(! N!@ #%)#(""%# !O(+ ! P,\$ !:QR, !S

\$#01<!, "%- \*%01, +%)\$!1&%!#3)\*1%3!'%89/#1)'4!2)3%/<!)!0&#.8%!, !1&%!/, #(/, 14!  
\*#'#3,82!-&)9/3!(%!)0.3901%3!)!#!/)0#/)!'%8,) #/!(#,-;!;-!, 1!&#-!(%!  
)1,0%3<!', -5-!)\$!#!\*#'#3,82!-&,\$1!, !, .1%'2%3,#'4!/, #(/, 14!#'%!&,8&<!(91!1&%!  
'-5-!)\$!#!). &#2)., V%3!#01,)!.!, !1&,-!, -9%#!'%!, 22%.-%:!!Z'#82%.1#1,).<!  
3,-0%\*#.0,%-!#2).8!>'9', -3,01,).-<!#3!/%8#/#.3!'%89/#1)'4!#(, 1'#8%!6)9/3!  
%=#0%!(#1%! 1&%! \*%!0\$\*2,-,\$)'2#1,).! #.3! /#05!)\$! 0'0%3,(, 14! ,!  
3,8,1#/-0%.%:! M)%! ,2\*'1#1/4<! #! 3,-&#2)., V%3! -1'#1%84! #8#5%!  
.6-U 6)9/3! /,5%/4 \*)+ )5%! #! .%6! +#, #.1! )\$! '%89/#1)'4! #'(, 1'#8%!  
T'/#1\$)'2! -&)\*, . 8:U X,-0%\*#.0,%-! ,! '%89/#1,).-! #.3! 3,+%- ,14! ,!  
\*/#1\$)'2-F! \*)/,0,%-! #.3! \*)0%39%! 6)9/3! \$'#82%.1! 1&%! 3,8,1#/-0%.%!, ! #!  
\*9#/, 14!)\$!\$)#:! C&%!\*')3901,).! #.3! 3,--%2, #1,).!)\$#5%!.%6!2,8&1!  
0,'092+%1!1&%!2)-1!-1',.8%.1!'%89/#1)'4!2)3%/!#3!1&%!2)9%#5%  
9,\$',%3/4! \*/#1\$)'2! 6,1&! -5/\$9!T'/#1\$2! -&)\*, .8: U ]/,4! , \$! 2)'%!  
'8)9-!'%89/#1)'4!2)3%/!#3!2)'%!'%-%01\$9!/#1\$)'2!2#.#8%!1)!2#5%!  
1&%,! -1'#1%8,%-! #! \*)=4! \$)! 0'0%3,(, 14<! 1&%! '%89/#1)'4! 0)2\*%1,1,).! 6,//!  
\*)390%#!#\*)- ,1,+%!!%\$%01!C&%!.!0)2\*/4,.8!/#1\$)'2!6)9/3!(%0)2%!1'9-1%3!  
1&,'3!\*#1,%-<!'%19',.8!1)!#!0%.1'#1\$)'2)3%/!#3!1&%!6,-%<!, \$!'%89/#1)'4!  
#(, 1'#8%! 3%1%'#)1%#-! 0).\$,3%.0%#! #.3! ,2\*%3%-! 9%-!F! #(/, 14! 1)! ,3%.1,\$4!  
0'0%3,(, 14!, .3,0,#<!2,-,\$)'2#1,).!6)9/3!%39%!!%/93!1&%\$)'1-!2#3%1)!  
0)9.1%'! ,1!  
!